Environmental Remediation at Pantex
Resolution of Issues with EPA and the State of Texas under CERCLA and RCRA

I. Pantex Plant History.

The Pantex Plant is located in Carson County, Texas, about 17 miles northeast of Amarillo. The facility covers approximately 16,000 acres with approximately 10,000 acres of this land owned by the U.S. Department of Energy (DOE)/National Nuclear Security Administration (NNSA) and 6,000 acres leased from Texas Tech University as a buffer zone for safety and security. The Plant is managed and operated by B&W Pantex Technical Services, LLC (B&W Pantex), the M&O Contractor since 2001. Except for a short period of time in the late 1940s when the plant was shut down, Pantex has been the site of weapons work since 1942 – conventional weapons during World War II and then nuclear weapons since the 1950s. Pantex is responsible for maintaining the safety, security and reliability of the nation's nuclear weapons stockpile. Currently, the primary missions are the assembly, disassembly, and maintenance of nuclear weapons, and the production of high explosives (HE) components. Historical waste management practices resulted in impacts to onsite soil and perched groundwater. With the exception of high-explosive material, the contamination found at Pantex is similar to those contaminants found at other non-nuclear industrial facilities.

II. Applicable environmental remediation statutes.

- The Resource Conservation and Recovery Act (RCRA, 42 U.S.C. § 6901, et seq.) regulates permits for the treatment, storage, and disposal of hazardous wastes. The corrective action component of RCRA requires the cleanup of treatment, storage and disposal facilities after they are closed.

- The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 42 U.S.C. § 9601, et seq.) established a program to identify, evaluate, and remediate sites where hazardous substances may have been released into the environment (e.g., Superfund sites).

- Despite the similarities, there are several significant differences between RCRA and CERCLA in the cleanup process. First of all, the regulatory authority granted to the respective agencies differs under each statute. In addition, there are differences in the timing of significant events, the public participation process, and the remedy approval process.

III. Chronology of events.

- In the late 1980s, DOE's Office of Environment Management (EM) began funding the Environmental Restoration Project at Pantex.

- In 1984, EPA transferred RCRA authority to the State of Texas. (The State of Texas, through the Texas Natural Resource Conservation Commission (TNRCC), provided RCRA oversight of the Pantex environmental restoration activities.)

- In 1991, EPA and TNRCC jointly issued a Hazardous Waste Permit for the Pantex Plant which authorized the treatment, storage, and disposal of hazardous waste.

- On July 29, 1991, EPA proposed Pantex for inclusion on the National Priorities List (NPL), the list of Superfund sites.

- In 1992, the Federal Facility Compliance Act (FFCA, P.L. 102-386) amended and strengthened the waiver of sovereign immunity found in RCRA. The FFCA was Congress' response to the Supreme Court's decision in *DOE v. Ohio*, 503 U.S. 706 (1992), which held that the waivers of sovereign immunity in RCRA and the Clean Water Act did not subject federal agencies to penalties for past non-compliance. As stated in EPA's "Final Enforcement Guidance on Implementation of the Federal Facility Compliance Act," dated July 6, 1993, "The Act's legislative history indicates that its primary purpose is to ensure that Federal facilities are treated the same as private parties with regard to compliance with the requirements of RCRA." This led to the negotiation of numerous Federal Facility Agreements.

- On May 31, 1994, EPA listed Pantex on the NPL which gave EPA jurisdiction. (CERCLA § 120(e)(2) requires that EPA enter into Interagency Agreements with responsible federal agencies to describe roles and responsibilities for remedial actions, including long-term monitoring, for NPL sites.)

- On December 21, 1994, EPA and TNRCC signed a Memorandum of Agreement (MOA). The MOA provided a mechanism for EPA and TNRCC to coordinate RCRA and CERCLA to ensure that the requirements of both processes are satisfied during similar phases of corrective and remedial action.

- In 1995 and 1996, DOE, EPA, and the State of Texas (TNRCC) attempted to negotiate a Federal Facilities Agreement (FFA) for the Pantex Plant, but no agreement was reached. The parties were unable to resolve the issue of state and federal jurisdiction. The environmental problems at Pantex needed to be addressed, but the contamination was not as serious and widespread as at some other DOE sites, especially those that were in litigation. The parties decided to simply leave the issue of jurisdiction unresolved and proceeded to clean up the site without an FFA. Coordination between EPA and TNRCC (which later became TCEQ, the Texas Commission on Environmental Quality) was accomplished pursuant to the 1994 Memorandum of Agreement.

- In 1996, EPA approved TNRCC's request to be the lead regulatory agency for oversight of the remediation of chemical contaminants. EPA retained the lead for oversight of radionuclide-related remediation. (The parties agreed that it made sense for the State of Texas to be the lead regulatory agency since there was very little radionuclide contamination.)

- Since 1996, Pantex has used Interim Corrective Measures to address soil and groundwater contamination. Near-surface soils above health screening levels have been

removed at over 100 sites. A Soil Vapor Extraction system was installed in 2002 to address volatile organic compounds in the unsaturated zone beneath the Burning Grounds area of the plant. With respect to the groundwater, a pump-and-treat system was installed in the southeast corner of the plant in 1995 to extract contaminated groundwater from the perched aquifer and to remover chromium (VI), volatile organics, and explosive material. Pantex also established an extensive ground-water monitoring program with more than 100 wells that provide samples for both internal and independent analysis. By 2005, Pantex had determined the nature and extent of the contamination at the plant, thus completing the investigation phase of the cleanup program.

- In 2003, TCEQ issued a RCRA Compliance Plan. This plan defines requirements for corrective actions, groundwater monitoring, and interim corrective measures. It also includes scheduling provisions.

- In 2007, EPA, DOE/NNSA, and the State of Texas, entered into new Federal Facilities Agreement negotiations for the Pantex Plant. After numerous meetings at EPA Region 6, as well as telephone conference calls, the parties were able to reach agreement. (Issues during negotiations of the FFA included RCRA/CERCLA integration.[1])

- On November 2, 2007, DOE/NNSA and TCEQ signed the FFA.

- On December 10, 2007, EPA signed the FFA.

- On February 22, 2008, following publication of a Notice of Availability and a public review and comment period, EPA issued a notification letter to DOE/NNSA stating that the FFA (also known as the "Interagency Agreement") is final. The FFA describes the roles and responsibilities of the agencies for performing and overseeing the remediation activities.

- By September 30, 2008, the Record of Decision is scheduled for signature by the Pantex Site Office Manager and approval by the Regional Administrator for EPA Region 6.

[1] One section of the agreement concerns the requirement to coordinate DOE's CERCLA response obligations with the corrective measures addressed in DOE's existing RCRA permit. The agreement states that DOE would submit an application to modify the corrective action provisions in the existing RCRA permit to incorporate the remedial action selected pursuant to the FFA. Disagreement arose over how the language would describe TCEQ's responsibilities once DOE submitted the application for the permit modification. DOE wanted the agreement to state that the TCEQ Executive Director would modify the permit. State of Texas representatives (TCEQ and Office of the Attorney General) did not want any language that would create the appearance that the TCEQ staff had pre-judged the application or that prevented TCEQ from requiring additional actions. (They viewed this as a jurisdictional issue.) While DOE was sensitive to Texas' concerns, DOE's position was that TCEQ would not have any basis to require additional actions since they had been involved in every step of the CERCLA process. The purpose of the RCRA application is simply to make the RCRA permit consistent with the CERCLA remedy. The parties finally agreed on the following language in the section entitled "Compliance With Other Laws/RCRA-CERCLA Integration:" "TCEQ will process the DOE RCRA permit modification application under the TSWDA and applicable regulations, and will prepare a draft RCRA permit based upon the application DOE submits to modify its RCRA permit." Language in the "Permits" section also states that, "Nothing in this Agreement shall limit TCEQ's regulatory or statutory authority regarding any existing, ongoing, or future regulatory activity or process."

IV. For more information, see the following internet sites:

Pantex Environmental Restoration Documents:
http://www.pantex.com/about/environment/erDocs/index.htm

EPA's Site Summary for the Pantex Plant:
http://www.epa.gov/region6/6sf/pdffiles/0604060.pdf

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